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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Melekian Group Art Unit: 3683
Serial No.: 10/056,156 Examiner: R. Siconolfi
Filed: 24 January 2002
Title: BRAKE SHOE ASSEMBLY HAVING A CORROSION REDUCING LINING

Mail Stop AF
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

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APPEAL BRIEF

Dear Sir:

Subsequent to the filing of the Notice of Appeal on 14 July 2003, Appellant now submits its brief. A check in the amount of \$320 is enclosed for the filing fee. Any additional fees or credits may be charged or applied to Deposit Account No. 50-1482 in the name of Carlson, Gaskey & Olds.

REAL PARTY IN INTEREST

The real party in interest is **Meritor Heavy Vehicle Technology, LLC**, the assignee of the entire right and interest in this Application.

RELATED APPEALS AND INTERFERENCES

There are no related appeals or interferences.

STATUS OF CLAIMS

Claim 1-13 stand finally rejected.

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STATUS OF THE AMENDMENTS

All amendments have been entered.

SUMMARY OF THE INVENTION

Brake linings are separate components which are removably mounted to a brake shoe table. Dissimilar materials and face to face mounting may result in moisture retention, corrosion, and possible brake lining fracture. *[See specification paragraph 3]*

The brake shoe assemblies 14, 16 according to the present invention provide a plurality of drain openings 54a located through the brake shoe table 28 which correspond with drain openings 54b in the brake linings 26. As apertures 39 for fasteners 38 must be in line, an affixed relationship between brake shoe table 28 and lining 26 is provided. The drain openings 54a, 54b thereby provide an unobstructed moisture escape path (illustrated schematically by arrows in Figure 2B) from the concave brake shoe table inner surface 37, such as within the trough 45, to thereby minimize moisture retention and the possibility of corrosion. *[See specification paragraphs 15-18]*

ISSUES

I. 35 U.S.C. 102 (b)

A. Is the final rejection of claims 1-3 and 5-7 under 35 U.S.C. §102(b) proper as being anticipated by *Blatter et al* (3,862,675)?

B. Is the final rejection of claims 1, 5, and 9-13 under 35 U.S.C. §102(b) proper as being anticipated by *Strebingner* (2,875,859)?

GROUPING OF CLAIMS

Claims 1-13 all stand or fall together for purposes of this appeal.

ARGUMENTS

I. 35 U.S.C. 102(b), Arguments

A. Blatter et al (3,862,675).

Independent Claims 1-3 and 5-7 stand finally rejected under 35 U.S.C. §102(b) as being anticipated by *Blatter et al* (3,862,675).

Independent Claims 1, 5 and 13 each recite:

...at least one of said plurality of brake lining drain openings aligned with one of said plurality of brake shoe table drain openings to provide an unobstructed moisture escape path.

Blatter et al discloses an anti skid brake system in which fluid is pumped at a high pressure through openings 44 between the brake shoe and brake pad to selectively reduce the friction and therefore the braking capacity therebetween. The fluid pumping solenoid valve 42 seals the openings 44. (See *Blatter et al* Figure 2.) That is, openings 44 only provide for a pressurized flow of the fluid from valve 42. Because to of the fluid pumping solenoid valve 42 must necessarily be attached to the opening 44, *Blatter et al* fails to disclose an unobstructed moisture escape path as recited in claims 1 and 5.

In fact, *Blatter et al* specifically discloses that the fluid (gas or liquid) have a high-rate of evaporation so as to be quickly dissipated, be non-flammable, and be relatively inert "so that it will not contaminate or deteriorate the brake drum or brake pad." [See *Blatter et al* col. 5, lines 37-44.] This "special fluid" cannot be properly construed as moisture as *Blatter* describes problems associated with moisture and then avoids them only by utilizing the "special fluid."

The Examiner suggests that "fluid can flow freely through the brake shoes" and Applicant's claims do not preclude the "use of a pump." This misses the point. The *Blatter* fluid pump itself necessarily blocks the openings 44 thereby which prevents *Blatter* from being construed as disclosing an unobstructed moisture escape path.

Interestingly, claims 10-13 were not rejected under *Blatter* which suggests that the Examiner cannot support the interpretation of *Blatter* therefor. That is, if *Blatter* really does disclose an unobstructed moisture escape path as suggested by the Examiner, there is no reason to exclude claims 10-13 from the rejection.

B. Strebinger (2,875,859).

Claims 1, 5, and 9-13 stand finally rejected under 35 U.S.C. §102(b) as being anticipated by *Strebinger (2,875,859.)*

Claims 1, 5 and 13 each recite: "said brake lining material defining a plurality of brake lining drain openings therethrough"

Strebinger utterly fails to disclose any *apertures* whatsoever *through* the brake lining 24, and 24a. That is, the openings 30 only pass through the rim 20a and not through the brake lining 24, 24a (Figures 5, 6 and 7) as recited in the independent claims.

The rejection of all claims is improper and Appellant respectfully requests that the rejections be withdrawn.

CLOSING

For the reasons set forth above, the rejection of all claims is improper and should be reversed. Appellant earnestly requests such an action.

Respectfully submitted,

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Dated: September 3, 2003

CERTIFICATE OF MAIL

I hereby certify that the enclosed Appeal Brief is being deposited with the United States Postal Service in triplicate as First Class Mail, postage prepaid, in an envelope addressed to Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on this 3rd day of September, 2003.


Beth A. Beard

CLAIM APPENDIX

1. A brake shoe assembly comprising:
an arcuate brake shoe table defining a plurality of brake shoe table drain openings therethrough; and
a brake lining matable with said arcuate brake shoe table, said brake lining material defining a plurality of brake lining drain openings therethrough, at least one of said plurality of brake lining drain openings aligned with one of said plurality of brake shoe table drain openings to provide an unobstructed moisture escape path.
2. The brake shoe assembly as recited in claim 1, wherein each of said plurality of brake shoe table drain openings and said plurality of brake lining drain openings are circular.
3. The brake shoe assembly as recited in claim 1, wherein each said plurality of brake shoe table drain openings and said plurality of brake lining drain openings are elongated.
4. The brake shoe assembly as recited in claim 1, further comprising a pair of struts attached to a concave brake shoe table inner surface which define a concave trough therebetween, said plurality of brake shoe table drain openings located in communication with said concave trough.

5. A brake shoe assembly comprising:
an arcuate brake shoe table defining a concave brake shoe table inner surface, a convex brake shoe table outer surface and a plurality of brake shoe table drain openings therethrough; and
a brake lining defining a wear surface, said brake lining matable with said convex brake shoe table outer surface, said brake lining material defining a plurality of brake lining drain openings therethrough, at least one of said plurality of brake lining drain openings aligned with one of said plurality of brake shoe table drain openings to provide an unobstructed moisture escape path between said concave brake shoe table inner surface and said wear surface.
6. The brake shoe assembly as recited in claim 5, wherein each of said plurality of brake shoe table drain openings and said plurality of brake lining drain openings are circular.
7. The brake shoe assembly as recited in claim 5, wherein each said plurality of brake shoe table drain openings and said plurality of brake lining drain openings are elongated.
8. The brake shoe assembly as recited in claim 5, further comprising a pair of struts attached to said concave brake shoe table inner surface which define a concave trough therebetween, said plurality of brake shoe table drain openings located in communication with said concave trough.
9. The brake shoe assembly as recited in claim 1, wherein said unobstructed moisture escape path is unpressurized.
10. The brake shoe assembly as recited in claim 1, wherein said unobstructed moisture escape path is open to atmosphere on both ends.
11. The brake shoe assembly as recited in claim 5, wherein said unobstructed moisture escape path is unpressurized.

12. The brake shoe assembly as recited in claim 5, wherein said unobstructed moisture escape path is open to atmosphere on both ends.

13. A brake pad comprising:

a brake lining friction material matable with an arcuate brake shoe table, said brake lining material defining a plurality of brake lining drain openings therethrough, at least one of said plurality of brake lining drain openings aligned with at least one opening through said brake shoe table to provide an unpressurized unobstructed moisture escape path open to atmosphere on both ends though both the brake lining and the arcuate brake shoe table.